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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/219,935	12/23/1998	JOHN BROWSE	BB-1036-B	4143
23906 7590 03/21/2008 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1122B 4417 LANCASTER PIKE WILMINGTON, DE 19805				
			EXAMINER MCELWAIN, ELIZABETH F	
			ART UNIT 1638	PAPER NUMBER
			NOTIFICATION DATE 03/21/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary

Application No.

09/219,935

Applicant(s)

BROWSE ET AL.

Examiner

Elizabeth F. McElwain

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 20-27 and 29-33 is/are pending in the application.
- 4a) Of the above claim(s) 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 20-24, 26, 27 and 29-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1, 20-27 and 29-33 are pending.

Claim 25 is withdrawn as drawn to a non-elected invention.

Claims 1, 20-24, 26, 27 and 29-33 are examined on the merits.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

This application contains claim 25 drawn to a nonelected invention. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

1. Claims 1 and 29-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 29 have been amended to recite “an amino acid identity of 90% or greater” to any one of the recited SEQ ID numbers. Applicants assert that support for this phrase can be found in the specification at page 11, line 19. However, there is no recitation of this phrase at that page and line of the specification and the phrase was not found on further review of the specification. And while the phrase “more than 90% overall identity at the

nucleotide level” is found at page 18, line 33, this phrase has a different meaning in that it does not include 90% and it relates to nucleotide instead of amino acid sequence identity.

2. Claims 1, 20-24, 26, 27 and 29-33 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an isolated nucleic acid fragment encoding a plant plastid or microsomal enzyme which catalyzes the formation of a double bond between carbon positions 3 and 4 numbered from the methyl end of a fatty acyl chain, wherein said enzyme has an amino acid identity of 90% or greater to a polypeptide having an amino acid sequence of any one of SEQ ID NOS: 2, 5, 7, 9, 11, 13, 15 or 17 or to a fragment of said sequences having at least 425 base pairs, does not reasonably provide enablement for any part of any one of said sequences which is useful in antisense inhibition or sense suppression of endogenous desaturase activity in a transformed plant. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims for the reasons set forth in the last office action.

3. The claims are drawn to an isolated nucleic acid sequence that may be any part of a sequence encoding an amino acid sequence having 90% identity to any of SEQ ID NOS: 2, 5, 7, 9, 11, 13, 15 or 17 that is useful in antisense inhibition or sense suppression of endogenous desaturase activity. However, the specification only discloses use of the full length sequences or to sequences that are at least 425 base pairs (at page 111, line 17 of the specification).

4. Applicants' arguments filed December 21, 2007 have been fully considered but they are not persuasive. Applicants argue that the use of gene fragments for co-suppression is known in

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the art, citing US Patent 5,231,020 as teaching that sequences as small as 50-100 nucleotides may be used, and sequences of greater than 200-300 nucleotides are preferred, and sequences of 500-1000 nucleotides are especially preferred. In addition, applicants state that "substantial homology" is defined in the specification as referring to nucleotide sequences with more than 90% identity with the coding region.

5. The Examiner maintains that while US Patent 5,231,020 lists a desaturase coding sequence among those that could be used in gene suppression if a desaturase gene were isolated, US Patent 5,231,020 does not disclose plants transformed with any portions of a desaturase coding sequence or what the phenotype of the resultant plants would be using any of the vast multitude of portions of sequences that are encompassed by the claims. In addition, applicants are arguing limitations that are not in the claims, wherein no minimum size is set forth to define a portion or fragment of the recited SEQ ID numbers. Furthermore, given the high degree of homology between fatty acid biosynthetic genes having different functional activities, the effect of transforming a plant with any portion of any of the recited sequences or sequences that encode amino acids that are 90% identical or would hybridize to said sequences under the recited conditions is highly unpredictable, as stated in the last office action. Therefore, it would require undue experimentation to make and use the claimed invention.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth F. McElwain whose telephone number is (571) 272-0802. The examiner can normally be reached on increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EFM

/Elizabeth F. McElwain/
Primary Examiner, Art Unit 1638